

Intl. Appl. No. : CT/NZ99/00047

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- (c) optionally including a foam enhancing agent as defined herein, and
d) optionally including one or more carriers or diluents;

A² cont
the proportion of (b)] wherein said agricultural composition comprises sufficient fatty acid soap and/or [(c)] sufficient foam enhancing agent [, in the composition, being sufficient] to allow the composition to be applied as, or to produce, a foam having at least a surface monolayer of bubbles during use.

2. (Amended) An agricultural composition as claimed in claim 1 [in which], wherein the monoterpene alcohol portion [includes] comprises pine oil having an alcohol content of at least 80%.

A³
4. (Amended) An agricultural composition as claimed in [any one of the preceding claims in which] claim 1, wherein the fatty acid soap is derived substantially entirely from tall oil, and [in which] wherein the ratio of tall oil to pine oil used in preparing the composition is within the range of 10:80 to 25:60 by weight.

6. (Amended) An agricultural composition as claimed in [any one of the preceding claims] claim 1, wherein the monoterpene alcohol portion and the fatty acid soap comprise [in which there is present, excluding optional components,] at least 55% by weight [of] pine oil.

A⁴
7. (Amended) An agricultural composition as claimed in [any one of the preceding claims in which in addition to the pine oil] claim 1, wherein the monoterpene alcohol portion [includes either or both of additional] further comprises at least one monoterpene alcohol[s,] or plant derived oil[s] containing [same] at least one monoterpene alcohol.

8. (Amended) An agricultural composition as claimed in claim 7 [in which] wherein the [additional] at least one monoterpene alcohol[s,] or plant derived oil[s] containing at least one monoterpene alcohol [same, include:] is selected from the group consisting of pinenes, terpineols, borneols, isoborneols, eucalyptus oil, citronellol, liminol, and oils from members of the citrus family.

9. (Amended) An agricultural composition as claimed in [any one of the preceding claims] claim 1, further comprising [which also includes] at least one member from [a] the group [comprising:] consisting of mono-cyclic monoterpene aldehydes, mono-cyclic monoterpene ketones, bridged mono-cyclic monoterpene aldehydes, bridged mono-cyclic

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monoterpene ketones, internally bridged monocyclic monoterpenes, unbridged monocyclic monoterpenes, anethols, fenchols, members of the limonene family, members of the camphene family, members of the thujol family, dipentes, members of the eugenol family, members of the phellandrene family, and cavarcols, and simple substituted derivatives of the foregoing.

a5
11. (Amended) An agricultural composition as claimed in **[any one of the preceding claims] claim 1, [in which, excluding optional components,] wherein the monoterpene alcohol portion and the fatty acid soaps comprise** a maximum of 35% by weight of tall oil and fatty acid soaps **[are present]**.

12. (Amended) An agricultural composition as claimed in claim 11 **[in which, excluding optional carriers or diluents,] wherein the monoterpene alcohol portion and the fatty acid soaps comprise** between 12 and 25% **[inclusive]** by weight **[of]** tall oil and fatty acid soaps derived therefrom **[are present]**.

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14. (Amended) An agricultural composition as claimed in **[any one of the preceding claims] claim 1, [in which] wherein** the amount of fatty acid soap present is sufficient to produce at least monolayer of foam covering at least 60% of foliage surface area to which the agricultural composition is applied, **[according to a test as defined herein]**.

15. (Amended) An agricultural composition as claimed in claim 14 **[in which, wherein [the] a test of the covering of the foliage surface area is performed on [any one or more of] at least one plant selected from the group consisting of wild ginger, dock, dandelion, [or] and scotch thistle.**

16. (Amended) An agricultural composition as claimed in **[any one of the preceding claims] claim 1, [in which an optional] further comprising at least one carrier or diluent [includes one or more of] selected from the group consisting of water[,]** and water-miscible solvents.

Sub C
17. (Amended) An agricultural composition as claimed in **[any one of the preceding claims] claim 1, [which includes one or more of the following optional] further comprising at least one component[s:] selected from the group consisting of surfactants, foaming agents, emulsifiers, pesticides, compatible fungicidal agents, and fertili[s]ing components.**

a7
19. (Amended) A ready to use composition comprising an agricultural composition as claimed in **[any one of the preceding claims] claim 1, wherein the agricultural composition is** diluted up to 1:9 with diluent comprising water.

20. (Amended) A method of killing or damaging undesired plants comprising applying a composition comprising [T]the composition of claim [20] 1 [when used as a herbicide, by application to plant] to the foliage of the undesired plants.

21. (Amended) ~~The composition of [any one of claims 1 through 19] claim 1, diluted with water to a concentration below a thresh-hold in which there is significant herbicidal action, wherein the diluted composition is for use as a pesticide or fungicide.~~

22. (Amended) A method of preparation of an agricultural composition **[which includes at least] comprising:**

a) combining a monoterpene alcohol portion **[including] comprising** a pine oil with an alcohol content of at least 60% by weight[; and

b) **a fatty acid soap from the combination of either or both of] with at least one tall oil, and/or [a] at least one fatty acid compound[, with an alkali metal compound,**

said method including the steps of:

i) **combining the fatty acid compounds and/or tall oils with the monoterpene alcohol portion;**

ii)] b) dissolving an alkaline material in water; and

iii)] c) reacting the components of step[s i) and ii)] a) with the components of step b).

23. (Amended) The method of claim [2] 22, **[when there is included, at step (i), other included optional components] further comprising adding in step a) at least one material selected from[:]**

the group consisting of plant derived monoterpene alcohols, plant derived oils containing **[same] monoterpene alcohols**, mono-cyclic monoterpene aldehydes, mono-cyclic monoterpene ketones, bridged mono-cyclic monoterpene aldehydes, bridged mono-cyclic monoterpene ketones, internally bridged monocyclic monoterpenes, unbridged monocyclic monoterpenes, and simple substituted derivatives of the foregoing.

24. (Amended) The method of **[either] claim 22 [or claim 23 in which], wherein** the pine oil has a total alcohol content of at least 80% by weight.

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25. (Amended) The method of [any one of] claim[s] 22 [through 24 in which] wherein, apart from water, [there is present] at least 55% by weight of pine oil is present in steps [i) through iii)] a) and c).

28. (Amended) The method of claim 22 [including] comprising the steps of:
i) combining a pine tall oil with a pine oil having a total alcohol content of at least 60%, wherein the proportion of tall oil to pine oil [being] is within the range of 10:80 through 25:60 inclusive;

ii) dissolving a metal hydroxide in water; and
iii) combining the dissolved hydroxide with the components of step (i) and allowing to react until a soap is formed[;

iv) optionally including any additional components].

29. A composition prepared according to the method of [any one of] claim[s] 22 through] 28.

30. A method of killing or damaging unwanted plants comprising applying [The use of] a composition as claimed in claim 29 to the foliage of the unwanted plants as a herbicide

32. A method of killing or damaging targeted plants, said method comprising applying [The use of a] the composition as claimed in [any one of] claim[s] 1 [through 21, or claim 29] to the foliage of said targeted plants as a selective foliar applied herbicide, [said use comprising dilution of the] wherein said composition is diluted to [within] a range defined by observable thresholds with an upper limit being the concentration for significant or irreparable damage to desirable plants, and a lower limit being no significant damage to target[t]ed plants.

33. The [use] method of claim 32, [in which] wherein the upper limit is defined by 10% or more of desirable plants being killed, and the lower limit by less than 10% or more of target[t]ed plants being killed.

35. A method of killing targeted plants or funguses, said method comprising [The use of a composition as claimed in any one of claims 1 through 12, or claim 29 as a pesticide or fungicide, said use comprising] diluting the composition of claim 1 to below a level in which significant or irreparable damage is inflicted on desirable plants and applying the diluted composition to the targeted plants or funguses.

38. The **[use]** method of **[either]** claim 35 **[or claim 36 for pesticidal applications]**, **[in which]** wherein the method of application maximizes the production of foam or entrapped bubbles in the applied mixture.

39. The **[use of a composition]** method as claimed in **[any one of claims 31 through 36]** claim 35 **[for pesticidal or herbicidal applications, in which]**, wherein the composition is applied in a manner **[in which]** wherein at least a monolayer of bubbles are formed over at least 50% of the leaf foliage surface area to which the composition is applied.

40. The **[use]** method of claim 39, wherein **[in which the]** a half-life of the formed bubbles, based on a 50% drop in the original covered surface area, is at least 2 minutes.

42. The **[use]** method of claim 40 **[in which]**, wherein the half-life is at least 10 minutes.

43. The **[use]** method of claim 39 **[in which]**, wherein application is by spray through a foam inducing nozzle.

Please add the following new claims:

47. (New) The agricultural composition of claim 1, further comprising a foam enhancing agent.

48. (New) The agricultural composition of claim 1, further comprising at least one carrier or diluent.

49. (New) The method of claim 28, further comprising adding optional components.

Please cancel claims 3, 5, 10, 13, 18, 26, 27, 31, 34, 36, 37, 41, and 44-46.